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Robert Alexander Smith

Date of Birth — Date de naissance

42-06-16

Country of Birth — Lieu de naissance

Canada

Permanent Address — Résidence fixe

11211-55 Avenue
Edmonton, Alberta T6H 0W9

Title of Thesis — Titre de la thèse

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Name of Supervisor — Nom du directeur de thèse

DR. R. G. Martin

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AN ANALYSIS OF ERRORS MADE BY PROBLEM WRITERS

by

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A THESIS

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THE UNIVERSITY OF ALBERTA

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "An analysis of errors made by problem writers" submitted by Robert Alexander Smith in partial fulfilment of the requirements for the degree of Master of Education.

.....
Supervisor

.....

.....

Date ...April 19, 1982.

To

E. Ruth Smith

and

Robert A. Smith

ABSTRACT

A traditional task of the school system has always been the teaching of writing. Lately the extent to which this was being satisfactorily accomplished has come into question and examples of flawed student writing have been frequently cited.

Despite years of concentration by teachers of all sorts there has been little or no attention paid to the task of cataloging the actual errors made by students. This was the task undertaken by this study, but it was first necessary to design a means of doing so.

Working with a sample of forty-one papers written by a group of University of Alberta freshmen, an error taxonomy was evolved. These students had been judged by a panel of professors to be incapable of meeting minimum university writing standards and had therefore been enrolled in remedial writing courses. The study tallied the various errors made by the students in a short essay written at the time of registration.

The results were analysed and reported in several tables. These included an overall rank ordering, an analysis by general categories, and further analyses of the errors most implicated in obscuring meaning (semantic errors). The results showed that a few categories accounted for most of the semantic errors, that some semantic errors were seldom committed, that the tendency for few errors to be repeated was general throuhgout all tables, that the categories most prone to error were those usually thought of as "the basics," and that Spelling, Capitalization,

and the Comma were frequent sources of error.

The five most frequently occurring errors were: Wrong Word (15.83%), Spelling (13.86%), Comma-Compound (12.88%), Capitalization (7.64%), and Confusing Word(s) (5.29%). In total these first five categories accounted for 55.50% of the total errors. Non-semantic (formal) errors that were significant included: Spelling (13.86%), Comma (21.31%), and Capitalization (7.64%). When these were removed from the totals the remaining semantic errors in order of frequency were: Wrong Word (40.58%), Confusing Word (13.57%), Confusing Sentence (10.05%), Redundant Word (7.54%), and Omitted Word (7.28%).

The conclusions that were drawn from the study include the observation that word and sentence errors at a fairly elementary level led all others in the semantic categories. It was noted that 64.20% of semantic errors were of this type, and that some categories were either not represented at all or were insignificant in their contributions. It was also noted that the problem writers in this group punctuated, capitalized, and used the comma very poorly.

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It has been said that a thesis is "a work of many hands." In this case the many hands performed many tasks, all essential to the project.

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Chapter I

THE BACKGROUND TO THE STUDY

Teaching students to write has long been a taken-for-granted function of schools. A charter member of the three r's, writing is one of the abilities thought to characterize the educated person. That it be evident at a certain level of competence is an objective shared by virtually every English program. Most lay and professional groups in our society agree that some degree of writing skills is vital to success in today's world.

The teaching of writing, however, has never been reduced to infallible methodology. Indeed the findings of many current investigations point instead to the diversity and complexity of the task. Although this is in keeping with intuitive notions of individual differences, it also points out the necessity to examine the teaching of writing from new perspectives, or perhaps to reexamine with new eyes old perspectives that may have been prematurely discarded.

The types and frequencies of "errors" made by student writers may well be a significant case in point. In the past errors were regarded mostly in the light of how they could be avoided. In the hope of doing this, students were asked to memorize rules and books were published listing the correct ways to use the language. These reflected notions of "correctness" held for a variety of unsystematic and apparently arbitrary reasons by a wide spectrum of pedagogues and self-styled experts in the written language, and involved such matters as syntax, spelling, word

selection, and punctuation. Despite disagreements among those who prescribed correct usage, something approximating a standard evolved and was captured in numberless texts and manuals that appeared over the decades in a blatantly prescriptive era of writing instruction.

Students were immersed in "who-whom and that-which distinctions, the possessive form with the genitive, the split infinitive" and many others (Shaughnessy, 1977). And, of course, in the current era the debate about "basics" has meant that such texts are enjoying a new prosperity as schools and universities attempt to fend off any suspicion that they are neglecting the matter.

There are two difficulties with this, the first of which is the disagreement that has always existed over what is indeed "right." The arguments have continued between the purists at one extreme and the relativists at the other. One group wishes to establish something resembling an absolute set of standards, while the other abandons all to the authority of the native speaker (Pooley, 1974, chap. 1). A clouded area referred to as "accepted usage" has evolved somewhere in the middle, confounded at both extremes by linguistic change and current usage. The numerous books on English usage merely attest to the seriousness of the debate.

This climate of discussion has given rise to the second problem which is an almost complete lack of information on the kinds and frequency of "errors" actually made by students. It would seem that in the lack of clarity over correctness, the notion of "error" and any rigorous investigation of it have been largely overlooked.

THE NEED FOR THE STUDY

This study proposed to examine examples of student writing, noting the kinds and numbers of errors, in the hope that this would shed some light on a part of the task that teachers of writing face.

Given this information, teachers could be helped to assess the effects of their methods in precise terms unavailable up to now. A new perspective on certain well-known mistakes and writing difficulties could be gained. The foci of future writing programs could be more knowledgeably identified and time spent in any one teaching area more realistically budgeted. In short, this information could prove invaluable in instructional planning and assessment.

Knowledge of the rates at which mistakes are made would be of use in establishing norms, themselves useful in establishing diagnostic standards. Some inferences could in addition be made as to the individual sources of errors and whether they vary in any systematic manner. Thus expectations for students and possible future research directions might be suggested.

Present concern with impaired university-level writers may benefit from actual data on the problem. Even if the taxonomy used to identify mistakes is not definitive, it may be a step in a direction likely to yield fruitful theoretical formulations and to serve as a starting point for consideration of valid curriculum revision.

THE NOTION OF ERROR

What constitutes an error in English is not a simple question. It is complicated by a number of factors, not the least of which is the

diversity of expert opinion. English handbooks list rules which accomplished speakers and writers consistently break. Scholarly books on English usage disagree in certain areas, giving rise to a number of differing editorial conventions. Time continues to modify acceptability often in ways that had been considered by many to be absolutely incorrect. Consider for example the "shall/will" distinction that was learned by many of today's adults, but is less emphasized all the time.

The following examples from Cameron's 1967 study point out similar terms of "disputed usage." They were considered by some teachers to be incorrect, but occurred commonly in speech and writing seen by most to be acceptable. Of the forty items presented to Cameron's judges, these were found to be least objectionable:

1. I only borrowed five dollars.
2. Who did you see?
3. He died, which shocked us.
4. There was a sort of agreement.
5. His failure is aggravating.
6. I contacted your office.
7. Can I ask you a question?
8. He was proven guilty.
9. I guess we can do it.
10. Perhaps I will go.

At the time various usage authorities expressed at least some support for the legitimacy of the shall/will who/whom distinctions and the position of "only" (Corbin, 1972; Bryant, 1962; Evans, 1966; Nicholson, 1957). The opinions of these experts are summarized in Cameron's "table of

conflicting opinion." One cannot help wondering how such a table if constructed today would differ. Current practice and linguistic change are factors which must be taken into consideration in the editorial standard of error in this study.

Other elements pertinent to that standard arise from Pooley's definition of good English as:

> . . . that form of speech which is appropriate to the speaker, true to the language as it is, and comfortable to speaker and listener. [It is] the product of custom, neither cramped by rule nor freed from all restraint; it is never fixed but changes with the organic life of the language (Pooley, 1974).

Since this arbitrates a standard of correctness, it must find expression in any standard of error. That standard must reflect the time, the context, and expert opinion.

In keeping with the above, three recent authoritative treatments of usage were invoked to determine errors in this study (Corbin, 1970; Bell, 1974; Walsh, 1966). They were consulted in each case and where all three agreed that a usage was inadvisable or incorrect it was considered an error except where indicated to the contrary in Pooley (1974) or Lamberts (1972). In other words, unanimous agreement by three current ranking "bibles of usage" constituted the criterion of error. Any item where agreement was less than unanimous was not considered an error.

WHY INVOKE SUCH A CRITERION?

Teachers of writing are particularly familiar with the problem of setting a policy of error reporting. It must not interfere with more important considerations, yet students must be informed of their mistakes if they are to be enabled to correct them. Invoking a standard of

"hypercorrectness" merely confirms for the poor writer that writing is a trap, not a means of communication (Shaughnessy, 1977). His more able classmates, faced with such a policy, may spend disproportionate amounts of their time "error-proofing." This is by nature a conservative process in which one often reduces the complex to the simple, thus playing it safe. Even if such a policy serves "to develop the ability [to communicate] ideas and feelings effectively" (Secondary Language Arts Handbook, 1975) it is an open question whether it enables students "to write with insight, discrimination, and imagination" (Program of Studies, 1978). Prescriptive teaching of this sort seems well enough intentioned, but is insensitive to the amount of choice facing a writer of English who must be able to "decide for himself whether he can live tranquilly with this or that usage or whether he should trade it in for another one" (Lamberts, 1972). The standard of error in this study was designed with the above in mind.

In fairness it must be said that the standard might be attacked by groups representing both the prescriptive and the non-prescriptive traditions. The former may feel that canons of minimal correctness are being slighted, while the latter could well characterize any standard drawing upon published expert opinions as representing a conservatism somewhat to the right of Genghis Khan. This stance was taken, however, in the light of two essential intentions of the study.

First, it has never been the purpose of this study to heap discredit and abuse upon teachers or students of writing. There is no sense in which its results could be considered better if they reflected that students made more, rather than fewer, errors. Its purpose in this respect was

merely to explore the status quo. A definition of error that was either too permissive or too prescriptive would merely distort the basic notion of "reasonableness" that was central to the intended spirit of the investigation.

Second, since this was a study undertaken in an educational framework, any invocation of a standard completely unadaptable to classroom use would seem, at the least, foolish. A consensus of leading authorities seems intuitively to be a reasonable way of classifying error leading to clarification of its nature so that such discussions do not begin and end in confusion.

It seemed therefore reasonable to undertake a status report on the actual mechanical difficulties which "deficient" writers in a major university revealed in bona fide samples of their written work under fully authentic conditions.

A SHORT NOTE ON "DESIGN"

This study was a very straightforward empirical analysis of several specimens of obviously troubled writing. Several examples have been included in the appendices to help the reader focus more clearly on the nature of the problem. They may also serve to influence those who hold that in the utterance of native speakers there is no such thing as error(s). (I suspect that those who hold that view have never seen these papers!)

The errors have been classified and counted. It was the object of the study to discover the types and frequencies of errors in the sample. This differs from the traditional treatment of error in two

ways: Firstly, it is specific. Secondly, it invites scholarly and considered speculation from among the professionals at whom it is obviously aimed. In addition, it has, for all intents and purposes, never been done before.

In specifically referring to particular types of carefully defined errors, the study lays the basis for later speculation by interested and informed people in the field. In doing these two things the study departs from a tradition that produced numerous publications aimed not at the professional but at the student. These books sought to advise. Typical examples are the various English handbooks whose examples of correct usage were provided to enable the student to write with increased clarity and effect, and, above all, to avoid error. These preventative/corrective intents are certainly admirable (and necessary), but they are just as certainly not the same as the intent to foster some amount of theoretical consideration and exchange among colleagues.

The study is indebted to Mina Shaughnessy for her pioneering work on error which resulted in the whole question of investigating error receiving a new lease on life. It may be an overstatement to say that the investigation of error was regarded as reactionary and pernicious before her work, but it is certainly the case that her humane and sensitive treatment of the problem was a turning point in the field. She, more than anyone, changed the focus on error from remediation to investigation.

The fact that no study that comprehensively counts errors is traceable in the literature underlines the unique nature of this study. In considering the various possible procedures that might yield useful

results an investigation of the types and relative frequency of errors would seem to be the logical first step.

THE STATEMENT OF THE PROBLEM

What kinds of mechanical errors are made by freshmen University of Alberta students judged to have writing difficulties, and how can these errors be adequately and comprehensively described?

THE SAMPLE

The sample consists of 41 papers written by freshmen students at the University of Alberta. The students were enrolled in English 190. These 41 students were selected for this remedial writing class by a panel of University of Alberta professors because it was thought that their writing abilities were insufficient for freshmen students. The papers which comprise the sample were used to diagnose the students' writing problems. These papers were typical of university writing assignments, in their demands upon the students. Three are reproduced in Appendix I.

DEFINITIONS: THE TAXONOMY

The task of defining categories of error will be recognized by the experienced teacher of English as calling for precision and judgement. It is hoped that each category identifies a unique error and that ambiguity is eliminated. It is also very difficult to construct categories that do not "leak" to some extent. It is when those leaks erode the reader's ability to understand, that a study such as this one

is placed in the greatest peril.

In an attempt to avoid leaks each term in the taxonomy has been defined as fully as possible. Examples have been provided from both the text of the sample and a well-known standard reference work. Where the category is such that the errors share some of their characteristics, but still differ from each other in a few less significant respects, sub-categories have been created. Also, in certain instances, these explanatory devices have been supplemented further by a brief note.

The definitions that follow appear in the same order as they do in the taxonomy itself. It is therefore easy to coordinate definitions with the tables of results that appear later. Where sub-categories have been found necessary the names of the sub-categories appear in alphabetical order within the category. Where needed the correct version is given in parentheses and/or the error underlined for clarity.

The examples shown are drawn largely from Bell (1977) or from the sample. In a few cases suitable examples have been written especially to illustrate the point under scrutiny. The examples drawn from The Little English Handbook for Canadians are so marked. Those that have been taken from the forty-one papers are followed by the word "sample" in parentheses.

DEFINITIONS

Awkward Sentence (21)

A sentence so ineptly put together that the resultant jumble of words is difficult to read or understand (Bell:55). A clumsily constructed sentence whose meaning could be rendered much more precise by restructuring.

Examples:

1. The football player has had many broken noses, with which he ends up looking like a prizefighter.

2. In every walks of like experience is the most important tool other than knowledge (sample).

Confusing Sentence (22)

A sentence that because of some flaw in the choice of disposition of words reveals no meaning or only a vague meaning (Bell:39). Words punctuated as a sentence whose meaning is so uncertain that no sub-sentence corrections are obviously and umambiguously implied.

Examples:

1. Much later in the story, the dinner conversation the function of the "small talk" seems to be about the old times.

2. But it is obvious that those people who are complaining that the society owns themselves something, will soon find out, that something which is actually what they own themselves and their society (sample).

Note. The basic difference between an awkward sentence and a confusing sentence is that while in the former some doubt always exists as to the precise intended meaning, this doubt does not prevent the sense of the message from being understood. In the case of the confusing sentence on the other hand it is not possible to tell with any certainty

what the intended message is. In this latter case frequently several possible meanings may seem possible, but it is impossible to decide which is intended.

Comma Splice (23)

The joining of independent clauses with a comma (Bell:35).

Examples:

1. We are not allowed to think for ourselves, that privilege is reserved for administrators (Bell:35).
2. The engineer takes his change in the job market with everyone else and if there is a need for engineers he will get a job, if there is not then he does not get a job (sample).

Lack of Parallelism (24)

Neglect of the basic principle of parallel structure that a pair or series (three or more) of coordinate units should be of the same kind --nouns with nouns, adjectives with adjectives, not a mixture of nouns and adjectives.

Examples:

1. John was healthy, wealthy, and an athlete (Bell:26).
2. Lincoln was a man of the people, for the people, and loved by the people (Bell:26).

Run-On Sentence (25)

Two or more independent clauses that have been run together without any conjunction or punctuation (Bell:37).

Examples:

1. Two suspects were arrested last week one of them was a cripple (Bell:37).
2. Learning has many obstacles it depends on what and how you want to work for a living (sample).

Sentence Fragment (26)

A string of words, between an initial capital letter and a period or question mark, that lacks a subject or verb or both.

Examples:

1. The reason for reaction being that people are flattered by courtesy (Bell:31).

2. By quota systems allowing only a certain number of students to take engineer equal to the number of jobs in four years (sample).

Mixed Construction (27)

The use of a particular form at the outset of a sentence without following it through to the called-for syntactic completion. Changing syntactic horses in mid-sentence.

Examples:

1. The farmer both wanted his inheritance which he had so long and patiently awaited from his long dead father.

2. Neither the red car which was already sold to his neighbour and ran well enough to be acceptable for his purposes was available.

Awkward Word(s) (31)

The use of a word whose meaning is imprecise in the context in that it "hits all around the bull's-eye" but never really communicates in the clearest manner what is to be understood (Bell:46).

The meaning is clumsily communicated owing to the use of the word. This situation is similar to awkward sentence except that the problem can be further localized to a few words that are at fault. The meaning is "not quite right," but not technically wrong. The meaning is evident, but not exact.

Examples:

1. Has been athletes always have a sore look on their face (Bell:47).

2. The student who participates in a faculty . . . (sample).

3. He should be judged by many other features of his ability.

Note: In this sub-category error classification severely tests even the most carefully constructed set of definitions. One must rely extensively on the context to judge the actual nature of the error. This can only be done by careful reference to the context as well as the definition.

Confusing Word(s) (32)

The use of a word whose meaning is completely unintelligible or that contributes so much ambiguity to the context that no clear meaning can be deduced.

Examples:

1. For most a lot of people they would rather use their brains (sample).

2. . . . there could be a danger of outraged number of people enrolling into this training . . . (sample).

Note. The writer using a confusing word, like the writer of a confusing sentence, makes it impossible for a reader to extract either a meaning, or the meaning from the context. The confusing word blocks completely the reader's ability to "translate" or even to guess with any confidence. He is left with what amounts to no clues as to what meaning is intended.

Inappropriate Word(s) (33)

A word that does not fit or is out of tune with the subject

matter, the occasion, the audience, or the personality of the speaker or writer. It is a word that is conspicuously inharmonious, and obviously from the wrong contextual register.

Examples:

1. From our study of human growth and development during the first ten years of life, we know about the incredible strength and resilience of the kid!

2. First off, students such as myself were told to observe proper decorum (sample).

Note. This category differs from awkward word in that it is more an error associated with the rhetoric of the context and the necessity to maintain consistency therein. It most frequently results from the writer juxtaposing the vernacular with more formal language. It is a break in the syntactical pattern. Unlike confusing word, the meaning always remains clear.

Misplaced Modifier (34)

The failure to appropriately juxtapose related words in such a way that a misreading or a reading different from the intent of the author results (Bell:24).

Word placement that makes meaning unclear.

Examples:

1. Anyone who reads a newspaper frequently will notice that many people are now concerned about pollution.

2. There are people who will try to not work at any cost, steal, or take welfare continuously even though they can work (sample).

No Such Word (35)

The author manufactures a word whose meaning is often clear

enough, but the "word" itself does not exist in the language (per the Oxford English Dictionary).

Examples:

1. The students were pre-warned of the impending exam.
2. But they haven't frusted to give up how to get more experience and how to learn the new thing from society (sample).
3. . . . if this happened teachers would be unemployed to a reasonal degree (sample).

Wrong Word (38)

A word whose meaning does not fit the context, does not express the intended meaning, or is the wrong form (Bell:43).

Examples:

1. The typical lifeguard has long ignominious hair bleached by the torpid sun.
2. If you do not here from me in three weeks, give me a call.
3. If the employer picks the top or the worse student its up to him (sample).

Note. There are a large number of ways in which a word can be wrong, some of which are outlined above. For the purposes of this study the important thing is really not to provide an exhaustive list of the ways a word can be "wrong," but rather to point out the frequency with which this error occurs. The significance of a large number of errors at the word level which impair meaning is the really noteworthy phenomenon.

Verb-Auxiliary (41)

The use of an auxiliary that is wrong or the omission of an auxiliary when needed. Any error of matching or omission.

Examples:

1. On reading over my test paper, I found that I (had) omitted the last answer.

2. Also their loss of freedom to choose a job could be able to endanger their will to struggle and it sounds unfair to the others (sample).

Verb-Form (42)

The incorrect substitution of a principal part.

Examples:

1. I have went to the laundromat.

2. She seen the sign.

Verb-Person (43)

The incorrect conjugation of the verb. Use of the wrong form of the verb with the noun or pronoun subject.

Examples:

1. Now the man in the purple raincoat hit the dog (present tense intended).

2. I walks downtown.

Verb-Tense (44)

The tense used is inconsistent with the context.

Examples:

1. . . . if society guaranteed every graduate a job, the competition inside society would be decreased. Will you work hard for your grades if you are guaranteed to a job after graduation (sample).

2. I will be coming home yesterday.

Comma-Compound Sentence (51)

The failure to use a comma before the coordinating conjunction

joining the independent clauses of a compound sentence. Punctuating a sentence as if it were a compound sentence when it is not a compound sentence, taking note of the conventions permitting the omission of the comma in such circumstances (Bell:79).

Examples:

1. He disliked this kind of cruel humour() yet when he met the actress at a dinner party, he teased her unmercifully (Bell:78).

2. Some of the people come out as engineer() but they end up working in the business world (sample).

Comma-Introductory (52)

The failure to separate the introductory words, phrases or clauses from the main (independent) clause by a comma (Bell:80).

Examples:

1. Underneath() the papers were scorched (Bell:80).

2. If a job weren't offered() it would influence others not to enroll (sample).

Comma-Pairs (53)

Separating pairs of words with a comma when they are joined by one of the coordinating conjunctions (no comma necessary here) (Bell:82).

Examples:

1. The mother, and the father appeared in court, and testified about their son's activities (Bell:82).

2. There was nothing they could do to prevent the gas attack, nor to protect themselves against the gas once it had been released (Bell:82).

Comma-Quotation Marks (54)

Failure to use a comma before the opening quotation marks in

reporting dialogue and before the closing quotation marks in the same case when followed by the narrator's attribution of the quotation.

Examples:

1. She cried() "come back or you'll be hurt."
2. "Watch out for the wagon()" he shouted.

Comma-Restrictive/Non-restrictive Clauses (55)

The failure to enclose a non-restrictive adjective clause supplying additional, but non-essential, information about the noun modified in commas.

Examples:

1. My oldest brother() who is a chemist() was hurt in an accident last week (non-restrictive) (Bell:87).
2. My youngest brother() who graduated from college in June() was the third family member to do so this year.

Comma-Series (56)

The failure to use a comma to separate a series of words, phrases, or clauses. (The use of the comma before the conjunction must be consistent.)

Examples:

1. Could he cope with the changes posed by war() poverty() pollution() and crime? (Bell:85)
2. He would have to terminate the war() alleviate the plight of the poor() arrest the contamination of the environment() and hobble the criminal (Bell:85).
3. . . . society has to plan for the amount of engineers() doctors() and lawyers that is needed (sample).

Comma-Suspended Structures (57)

Failure to separate the suspended structure from the completing phrase by commas (Bell:84).

Examples:

1. This account of an author's struggles with, and his anxieties about, his writing fascinated me (Bell:84).

2. All this start at our educational institutions() the universities() where quotas are imposed (sample).

Apostrophe-Possessive (61)

The failure by the writer to use the apostrophe to show the genitive case when required (Bell:9).

Examples:

1. This seems very logical as the government largely pays for an engineering students education and why bother spending money training engineers that in the future may not be needed? (sample)

2. Well, perhaps one of the least important reasons is that the governments plan might not work so well (sample).

Apostrophe-Contraction (62)

The failure of the writer to include the apostrophe to mark a contraction. The use of an apostrophe to mark a contraction that is, in fact, a possessive.

Examples:

1. The worst example of George's writing ability wasnt allowed to be shown to anybody.

2. The fox crept out of it's (its) den one night.

Capitalization (63)

Failure to capitalize proper names, the first word in a sentence or line of verse, words in titles, and the appropriate week, month, and special holiday names (Bell:121, 122, 123).

Examples:

1. firstly, most of the institutes are either financed federal or provincial governments (sample).
2. An alternate method is to further limit the student enrollment to the faculty of engineering (sample).
3. Should society guarantee an engineer a job upon graduation? (The title of an essay) (sample).

Colon (64)

Incorrect use of, or failure to use the colon after a grammatically complete lead-in sentence that formally announces a subsequent enumeration, explanation, illustration, or extended quotation (Bell:98).

Examples:

1. The courses I am taking this term are as follows, English, sociology, economics, chemistry, and mathematics (Bell:98).
2. For example: The "job" for an engineering student are those in the engineering field (sample).

Hyphen (65)

Erroneous use of the hyphen in the cases of , compound words, two-word numbers, combinations with the prefixes "ex" and "self," two or more words functioning as a single grammatical unit, combinations with prefixes like anti, pro, pre, and post when the second element begins with a capital letter or number, and combinations where the unhyphenated compound might be mistaken for another word (Bell:116). See also end of line breaks (Bell:117).

Examples:

1. Mostly its a "look-what-I-can-do-with_numbers" deal (sample).

2. They will upgrade their knowledge to get these jobs. So the enroll_
ment goes up in the college (sample).

Semicolon (66)

Failure to use a semicolon to join the two independent clauses of a compound sentence in the absence of a coordinating conjunction. The use of a semicolon when not required or when other punctuation would be correct such as to join two units of unequal rank (see example 2 below) (Bell:95, 96).

Examples:

1. All the students spontaneously supported the team_ they wanted to show their loyalty, even though they were disappointed with the outcome of the game (Bell:94).

2. He played the banjo expertly; although he couldn't read a note of music (Bell:97).

3. For instances; the construction of Alaska gas pipeline need a lot of engineers (sample).

Parentheses (67)

The incorrect use of parentheses to mark off elements of a sentence for additional information, attention, or identification (Bell:102).

Examples:

1. All the companies that used the service were charging a small fee (usually $500_ and were required to sign a contract (an "exclusive-use" agreement_ (Bell:102).

2. The manager of each franchise is expected to report monthly to NARM (National Association of Retail Merchants_ and to "rotate" (take turns doing various jobs_ every two weeks (Bell:102).

Other Punctuation (68)

Errors in punctuation other than those defined above and occurring so infrequently on the sample as not to warrant a separate classification (see appendix for analysis).

Antecedent-Pronoun (71)

The pronoun does not agree in person, number, and gender with the antecedent, or the antecedent is not clear (Bell:17, 19).

Examples:

1. A family cannot go camping these days without a truckload of gadgets to make your campsite look just like home (Bell:17).

2. The crew threw some floatable items overboard for the sailor, even though they knew that it would probably not save him (Bell:17).

3. The high school did not live up to his promise to the students (Bell:17).

4. These helpful tools permit you to solve math, chemistry, physics, problems, communicate with people, come up with ideas to solve social evils, to write better, etc. etc. It is not Canada Manpower (sample).

Subject/Verb Agreement (72)

The verb in any clause fails to agree in number with its subject (Bell:12).

Examples:

1. He don't care about anything (Bell:12).

2. John and his sister was questioned by the police (Bell:14).

3. John or his sister run the store (Bell:14).

4. First off, students, as myself, has been told time and time again before entering university, not to expect a job waiting for you (sample).

5. Those who has knowledges but can't perform the task is worse than those who has experiences in the field (sample).

Spelling (80)

Each case of a misspelled word has been counted in totals. In the case where alternate spellings are listed in either Oxford or Merriam-Webster they are always acceptable, as well as spelling variations peculiar to one English-speaking country as long as these variations are used consistently by the writer.

Examples:

1. flavor/flavour
2. connection/connexion

Unidiomatic Expression (90)

An expression is deemed "unidiomatic" if it would not be said that way by native speakers of the language (Bell:51).

Examples:

1. Although I agree to a few of Socrates' principles, I must disagree to many of them (Bell:51).
2. Engineers can help maintain the life and blood of the society, by keeping the wheels turning (sample).
3. Social problems begin to take place (sample).

PROCEDURES

The basic procedure was the analysis of the mechanical errors in the sample papers. A list of categories appears below. The categories themselves were evaluated with respect to their ability to report accurately and comprehensively the nature and scope of the errors. The

final test of their adequacy was the analysis of the papers. Considerable testing and modification of categories was initially necessary, since a secondary objective of this study was to arrive at a sound basis for describing error. The data themselves suggest refinements in the grouping of categories that resulted in a clearer presentation of results. Generally, however, the taxonomy remained unaltered.

LIMITATIONS OF THE STUDY

1. The study was limited to freshmen University of Alberta engineering students with writing difficulties.

2. No attempt was made to determine the cause of these difficulties.

3. The difficulties examined were limited to the mechanical.

4. No attempts were made to compare members of the sample to any other students.

DELIMITATIONS OF THE STUDY

1. The study made no inferences or recommendations as to what can be or should be taught.

2. The study did not evaluate style, clarity of thought, communicative effectiveness or other substantive aspects of the papers in the sample.

3. The findings are not intended to be generalizable outside the group under consideration.

4. Although the results may be of informal interest to other universities because they represent a problem current at a major western Canadian university, there is no sense in which they would formally and scientifically be generalizable.

SUMMARY

Although schools have been seen as being obliged to teach writing since their inception, the means of doing so has never included attention to the kinds and frequencies of student errors. Such information would shed a new and needed light on writing problems, complaints about which are reaching epic proportions today.

It is necessary when considering errors to set a reasonable standard as to what actually constitutes an error. This study invoked agreement by well-known authorities in the field and thus took a generous, if not liberal stance. The next step was to design a satisfactory means of reporting the errors.

The design made use of an existing sample of writing from a group of University of Alberta students who had been judged incapable of writing to freshmen standard. This judgement having been made by a group of professors at the University, the essays written by the students at their admission to the University were examined and the errors recorded.

This entire procedure owes much to the work of the late Mina Shaughnessy whose initiative in considering the errors that her students made led directly to this systematic investigation.

Terms are defined in terms of both the actual errors and reference books of some stature. Appendix I contains three verbatim examples of the type of paper found in the sample.

The study was limited to University of Alberta freshmen students' mechanical errors without any attempt to speculate as to the causes of those errors or to generalize to other groups. In addition to an acknowledged lack of generalizability, the study does not formally imply what should or should not be taught.

Chapter II

A REVIEW OF RELATED LITERATURE

In April 1975 English Journal, Stephen Judy asks the question: "Who Resurrected Bonehead English?" He goes on to document one hundred years of concern over the writing standards of college freshmen. In the light of this historical concern, it is astonishing how little has been done to investigate student errors.

TANGENTIALLY RELATED WORK

Rodgers undertook a truly monumental study in 1932 analysing some 29,000 student papers. While this study documented error it is of little use to the current investigator since many of the errors recorded are now current usage. Change in the language and expert opinion renders it inapplicable in the 1980's, and in any case, the data were of American rather than Canadian origin.

More recently, Cameron's study (1967) found that sensitivity to disputed usage varied among different groups in the population. More pertinent to this study, his examples of disputed usage today give some indication of the ways language change alters standards of correctness and therefore error.

One investigation more restricted in scope than this study analysed errors in spelling in Alberta schools and assessed the usefulness of such analysis. Improvements were noted as a result of the application of the data to planning (Thomas, 1966). Mazur (1976) carried out a study of

six students from each of grades one to eight in New York State. He attempted to uncover the status quo with respect to punctuation and sentence structure. He found that the greatest problems concerned punctuation at the end of a sentence and capitalization at the beginning. Run-on sentences were found to be a problem across all grade levels studied.

THE WORK OF MINA SHAUGHNESSY

As has been noted in the previous chapter, this study owed much to the work of Mina Shaughnessy on error. In her widely acclaimed work, Errors and Expectations (1977), she drew attention to error in a way that opened this and several other avenues to consideration. She taught and studied college freshmen in the open-admissions program at the City University of New York. Among these students, admitted without the usual entrance requirements, writing problems were rampant. Students who quite adequately met all requirements in other areas were totally unable to function when the time came to put their thoughts into writing.

Shaughnessy submitted an exhaustive analysis of handwriting, punctuation, syntax, spelling, sentence structure, and common errors found in the writing of these students. She gave actual examples of the problems, some of them almost unbelievable to behold. From her five years of working with these students she was able to speculate about causes and reveal some of the teaching approaches that were successful. Her work indicated that a knowledge of the kinds of errors made by students is essential to developing teaching strategies to correct their mistakes.

Equally important, however, was the impact of Shaughnessy's work on the study of writing and writers. A common complaint of new researchers is that they frequently claim that there is no literature to review in the area of proposed concentration. Before Shaughnessy, as the reader will have already seen, there was a definite dearth of material on error. After Shaughnessy, we begin to see some activity that qualifies as research. An area of study that had long been rejected as unworthy of serious investigation, attention to which had even been considered reactionary and pernicious, is emerging from the shadows.

Shaughnessy and her colleagues at the City University of New York began a journal that dealt with problem writers and the activity surrounding them. That it was necessary to found a new publication is further evidence of the former lack of activity on the topic and further evidence of the lack of a substantial body of literature on the subject.

ENGLISH HANDBOOKS AND NEWSPAPER STYLE BOOKS

Of course, it would not be accurate to say that no attention whatever has been paid to error by the various professionals in the field. Numerous publications attest to this fact. These include the various English handbooks used most notably at the high school and college levels.

At the high school level in Alberta, Corbin, Perrin and Buxton's Guide to Modern English is by far the most common of these publications, having been in use for over ten years. More recently, Bell and Corbett's The Little English Handbook for Canadians (1977) has come into use in the schools. But both before and after these publications, other examples

of the same thing would serve to typify this approach to error.

At the college level, there are the college handbooks. The Harbrace College Handbook, The Macmillan Handbook of English, and The Perrin-Smith Handbook of Current English are among many offering their own authority as the basis for their recommendations. They offer examples of correct and incorrect usage to help students to write correctly.

Other publications that dealt with error include the various style manuals commonly associated with the newspaper business. The best known of these is doubtless The New York Times Style Book, but the various newspaper powers all have some corresponding volume whose purpose is to provide "a set of rules or guides designed to assure consistency of spelling, capitalization, punctuation, and abbreviation in printing the written word." These manuals have guarded against error and promoted clarity, but there is another purpose that they also serve. Any newspaper concerned with its reputation would agree that "a publication that capitalizes the word on one page and lower-cases it on another may lead the reader to believe that such untidiness extends to larger matters."

In all of these concerns the style books have quite a different aim from any literature pertinent to this study. Along with the high school and college handbooks, they seek to advise writers what is appropriate. It is handy for the author of an article that he hopes will appear in a daily newspaper to have a reference that indicates which of the several English language conventions are being followed by those who decide such things at the publication in question.

There being a number of "correct" choices, a style manual assists him in employing the appropriate ones.

That these publications are not directly pertinent to this study is obvious both from the fact that they are aimed at an audience very different from the problem writer and that they do not seek to encourage any type of scholarly investigation. In addition, these manuals consist of lists, not of errors, but of the "correct" and "accepted" usages. This study also produces lists, but lists of quite a different kind. It lists the errors that the problem writers actually made.

OTHER LITERATURE CONCERNING ERRORS

The remainder of the literature on errors refers to work done with subjects for whom English was a second language. Lukendakenda (1976), Willcott (1973), and Mbosowo (1977) dealt with errors in the English of Tanzania, Arabic and Nigerian students. Much of this work concerns the interference effects of the respective mother tongues. It provides excellent methodological background, but the results cannot be compared to those for native speakers.

THE SEARCH FOR RELATED LITERATURE

Finally, every major source or index of possible related studies known to the investigator was examined, with the striking result that although there has been a vast amount of discussion about "basics" in connection with writing, there has been, in fact, no comprehensive empirical work done on the actual current state of student competence or

incompetence in the same "basics," with the possible but dubious exception of NAEP results in the United States, which in any case do not describe the Canadian or Alberta situation in this regard.

The following are the types of sources consulted in the search.

ERIC searches were mounted using various combinations of the following descriptors:

Basic Skills
Composition Skills
Editing
English Instruction
Errors
Language Arts
Language (Written)
Linguistic Difficulty
Miscue Analysis
Mistakes
Punctuation
Spelling
Student Writing Models
Syntax
Writing Skills

Similar searches were made of the Encyclopedia of Educational Research (Ebel), Second Handbook of Research on Teaching (Travers), Dissertation Abstracts International, English Journal, and Research in the Teaching of English. The net result of these searches is the conclusion that our present knowledge of student problems with mechanics in writing at the stage of university entrance has no empirical basis in Alberta or, more generally, in Canada. The proposed study is intended as a first step in that direction.

SUMMARY

In this chapter, the various kinds of attention that have been paid to error are documented. The studies are characterized by the fact

that they are few in number and unlike the present investigation in intent. Indeed, there is no modern study that systematically categorizes errors by frequency and type. Past work has concentrated instead on such things as spelling, disputed usage, and the state of punctuation and sentence structure in grade one to eight students in New York State.

The work of Mina Shaughnessy among students at the City University of New York began to legitimize the study of error. The unusual and unexpected problems of her students led her to catalogue error types at considerable length. She then speculated as to their sources and related teaching approaches she had found successful. So powerful was the impact of her work that it opened the field to attention and new study.

In contrast to Shaughnessy, where error has been referred to elsewhere in print it has frequently been treated as something that one can avoid if only the rules for correct usage are available to the writer. In the high schools of Alberta and the colleges across North America the various English handbooks that have from time to time been prescribed attest to the power of this approach. Similarly, the style manuals of the popular press treat error by advising the reader of acceptable usage.

Another area of study mentioned in the literature concerns itself with the interference errors produced in the writing of those students for whom English is a second language. These are systematic studies, not unlike the present one; however, their results do not reflect the situation with native speakers of the language. A similar step in an empirical direction was that taken in the as yet unpublished work of Dunn.

It only remained to insure that all care had been taken to

search all of the possible sources of information as to publications on error. A concentrated effort, including reference to all of the index publications and services, produced nothing more. It was concluded that there existed no modern systematic study of the errors made by a sample of native speakers who were also problem writers.

Chapter III

DESIGN AND PROCEDURES

The problem that the study was designed to cope with was that of ascertaining the actual kinds of errors made by a group of students who had been judged to have serious enough writing difficulties to require enrollment in a remedial English class. Embedded in the problem was the necessity to devise a means that was both adequate and comprehensive, in describing these errors.

DESCRIPTION OF THE SAMPLE

The subjects whose written work was analysed were University of Alberta students. They had successfully met the stringent admission criteria of the Faculty of Engineering, a part of which was a grade twelve academic average in excess of seventy-four percent. In spite of this, the entire group had been judged by a group of University of Alberta professors to be in need of remediation in the writing skills. Accordingly, they were required, as part of their first year program, to enroll in a class designed to help them with their writing problems. The group consisted almost entirely of native speakers of the language so that the results were not inordinately affected by interference problems. For further discussion of the sample see Appendix III.

In this particular group there were forty-one students. The actual basis for their categorization as problem writers was a paper

written at the time of registration. The paper was set up in a manner typical of the kind of assignment required of a university student. The topic was supplied by the examiners. The assignment required no special knowledge or experience. Instead it tested the extent to which the writer was capable of expressing himself clearly. The papers were written before the students had been exposed to any remediation attempts on the part of the University.

The papers themselves were handwritten, for the most part fairly neat and legible, and from three to ten pages in length. Subject to the usual difficulties in judging the content of work done by problem writers (it is difficult to judge the cogency of that which you cannot decipher), the writers would seem to have had no difficulties finding things to say on the topic. Indeed, rather than suffering the agonies of being "stuck for words," the authors seemed eager to express what were often strongly held opinions, but the exact nature of these opinions often remained a prisoner of their inability to write well.

Because the nature of the actual papers in the sample is impossible to describe, and because some appreciation of it aids the reader immeasurably in understanding just what kind of writer this study is concerned with, three typical papers have been reproduced in Appendix I exactly as written. The intent is to afford to the reader the opportunity to experience firsthand something that the researcher feels cannot be fully described quantitatively. It is also useful to read these three papers because the entire sample forms a very special context to which the study relates.

DATA GATHERING

In order to gather data for this study it was first necessary to give some thought to a means of error classification. As has been indicated in the review of the literature, there have been numerous positions taken and defended with respect to whether a given usage is or is not an error. It also follows from the lack of relevant literature that no tested and proven classification system existed. This entire matter has been referred to earlier; however, it becomes important at this point because of the extent to which the actual process of data gathering rightly contributed to the confirmation, and to some degree the creation, of the classification system. Lacking a sufficient model, where firsthand experience analysing the papers indicated the need for further categorical distinctions to promote clarity in the data, these revisions in the classification system were made and later tested. Thus the data gathering process was more than a mere quantification; it was also a determinant of the manner in which the final results would be presented.

The actual process of "counting" the errors resembled, on the surface, the marking of essays. There were some important differences, however, which made the task unique. It was often necessary to read and re-read each paper repeatedly in order to be certain of the actual message. In any work filled with errors it is the case that the intent of the writer remains unclear. In many of the papers the precise nature of the frequently interacting errors had to be carefully teased out of the resultant maze.

Of course, it was also crucial to be consistent in the identification of errors. The most valuable research tool here is the careful definition and illustration of each error. Having carefully defined the classification categories, an equally careful process of comparison was undertaken for each error recorded to insure that a proper and consistent classification had been made. This process also contributed to the sharpening of the categories and the distinctions among them. The result was a system of classification which, while not intended originally for the purposes of marking student essays in the normal sense, seems well adapted for that purpose.

As each error was identified it was literally recorded, and its paper number, page number, and line number noted. This data proved invaluable when later checks were being made to insure consistency of categorization. Because the record both listed and cross-referenced errors, and was produced as a part of the data gathering, not only was later checking made much more efficient, but initial errors were often either eliminated or caught as they were about to be made. This record was later typewritten and used in the final consistency checking.

The papers themselves were assigned numbers from one to forty-one by the original group of professors who used them to rate the incoming students. This study simply maintained that numbering system, after assurances that it was completely random and in no way grouped the papers.

GENERALIZATIONS FROM THE RESULTS

The sample itself is in no sense either random or representative and is thus not, in the statistical sense, one which produces results from which inferences can be made to any particular population. Furthermore, not only is this a feature of the sample, but as the reader will have already noted, the design makes no attempt to compensate for this fact. There are two reasons for this.

In the first place, it was not the purpose of this study to investigate the errors made by the population at large, but to concentrate on the kinds of errors made by a portion of the population who have been judged to be problem writers. It was about this latter group that the researcher hoped to learn and the methods were therefore designed to study them directly, something which had never before been done.

Secondly, although the group under scrutiny was not typical of the population in any way, it was a group whose dominant characteristic, the inability to write adequately, had been widely reported and was the source of much concern. The study concentrated on a sample that displayed that characteristic with the thought in mind that the data might be of at least passing interest to individuals or institutions having to deal with similar groups.

CRITERIA FOR ERROR IDENTIFICATION

As has been noted in Chapter I, there are many possible criteria or combinations thereof for error. To insure consistency with current

usage three authoritative treatments of usage were invoked for the purpose of determining what was an error. Corbin (1970), Bell (1974), and Walsh (1969) were consulted in each case and where they all agreed that a usage was incorrect it was considered an error, except where indicated to the contrary in Pooley (1974), or Lamberts (1972). This amounted to unanimous agreement by three current ranking authorities on usage. Where agreement was not unanimous, that usage was not considered an error.

THE CLASSIFICATION SYSTEM OR TAXONOMY

Sentence Errors

21 awkward
22 confusing
23 comma splice
24 parallelism
25 run-on
26 sentence fragment
27 mixed construction

Word Errors

31 awkward word, phrase, clause
32 confusing word, phrase, clause
33 inappropriate word, phrase, clause
34 misplaced word
35 no such word
36 omitted word
37 redundant word
38 wrong word

Verb Errors

41 auxiliary
42 form
43 person
44 tense

Comma Errors

51 compound sentence
52 introductory word, phrase, clause
53 pairs of words, phrases, clauses
54 direct quotation
55 restrictive/non-restrictive clauses
56 series
57 suspended structures

Other Punctuation Errors

61 apostrophe-possession
62 apostrophe-contraction
63 capitalization
64 colon
65 hyphen
66 semicolon
67 parentheses
68 other

Agreement Errors

71 pronoun antecedent
72 subject/verb agreement
73 shift of person

Spelling Errors

80 spelling

Errors in Idiom

90 unidiomatic construction

The classification system as presented above can be further explained by referring to the definitions and examples in Chapter I. The numbers appearing before the former and in parentheses after the latter, identify the general categories and sub-categories for the purposes of quick reference.

The taxonomy groups errors for the purposes of overall comparison of general categories, while still making it possible to break down the general categories into their components. The groups designated as "word" errors and "sentence" errors are examples of this. The contention

is that since the mistake made is at the "word" and "sentence" level rather than, say, at the punctuation, spelling, or verb level, these errors should be grouped together for the purposes of comparison. It is a means of breaking down the data without altering it in any way.

Another feature of the taxonomy is that it reports some of these errors in greater detail than others. For example there are seven different types of errors reported concerning the comma versus a single category for all kinds of spelling errors. This can be accounted for by the purposes of the study and the practicalities of the situation. That an error is a "spelling" error is quite sufficient information for this study's purposes, quite apart from the fact that the study of all of the various kinds of spelling errors possible in a sample such as this is a task which is itself worthy of thesis proportions. In short, the error categories have been broken down further in some cases than others according to the researcher's judgement of whether or not the information so gained was of sufficient importance so to warrant.

A final note on the design of the taxonomy concerns the inclusion of some error categories that were later shown as being infrequent types of errors for problem writers. They were initially included because it is as important to know the kinds of errors that problem writers do not make as it is to know the kinds of errors that they do make. These categories, however, are few in number, as the subsequent analysis will make more clear. It should also be noted in this connection that since the taxonomy accounted for all of the errors detected in the papers, the absence of an error category from the list of final results indicated that no errors of that kind were made in any of the papers.

Considerable thought and effort was given to making the taxonomy practical and easy to use. Not only were there obvious advantages to this for the researcher, but it was also felt that a plain-language approach would benefit the reader. Accordingly, wherever possible error names were as descriptive as possible. This is also in keeping with the more current textual material (Bell, 1974).

SPECIMEN PAPERS: APPENDIX I

Earlier mention has been made of the inclusion of three of the papers in the sample. These form Appendix I and are reproduced exactly except for the fact that the originals were handwritten. As has been previously stated, their presence affords the reader an opportunity to view, firsthand, something very difficult to describe adequately either in numbers or in words. It was felt, however, that their presence was required if the context of the study was to be fully appreciated.

But there was another reason for their inclusion. As the study progressed, it was frequently the case that various colleagues expressed an interest in it. They invariably asked to see the writing sample, and just as invariably their first reaction to it was disbelief. These were, in many cases, people who were themselves professionally involved in the teaching process, but they nevertheless had no small amount of difficulty believing what they were seeing. It is for this reason, and because the initial disbelief was likewise invariably followed by an increased ability and desire to reflect upon the nature of the study, that these papers have been included.

SUMMARY

This chapter has described the sample, the gathering of data, the statistical nature of that data, the criteria for the classification of errors, and the papers to be found in Appendix I.

Forty-one papers judged by a panel of University of Alberta professors to be the work of students in need of remedial English classes were analysed. The nature and numbers of their errors were tabulated. The nature of error was carefully defined in terms of widely recognized authority, and a classification system which reflected this authority and the nature of the errors found was used to present the results. Specimen papers are to be found in Appendix I.

Chapter IV

RESULTS AND DISCUSSION

THE PRESENTATION OF THE RESULTS

The results of the study are presented below in a total of seven different tables. Each table highlights a different relevant aspect of the data. Taken together the seven proceed in a logical progression to identify the major sources of meaning impairment.

Table 1 presents a rank ordering of error frequency. Table 2 shows errors of high frequency but low semantic significance and is an intermediate step on the way to Table 3. Tables 3 and 4 both rank order the errors by general category, the former with the inclusion of the items in Table 2, the latter without them. These two tables are intended to be compared. In Tables 5 and 6 word errors and sentence errors are analysed further. Table 7 presents a rank ordering of word errors and sentence errors combined.

In first considering the overall frequencies of error in the various categories and then proceeding to the analysis of word and sentence errors the analysis of the data proceeds from the less semantically significant to the more semantically significant. This is not to indicate that the error categories left unanalysed are unimportant. It reflects instead an intent to concentrate first on the errors that offer the greatest impairment of meaning.

A RANK ORDERING OF ERROR FREQUENCY

The table below presents the errors in rank order of occurrence. No attempt has been made to group the errors in any other way. The taxonomic number, error type, the raw frequency, the percentage, and the cumulative percentage are also given.

Table 1 shows that a very large percentage of errors (42.57) occurs in only three of the thirty-nine error categories. This trend continues throughout the table. For example, the addition of the fourth category to the totals of the first three brings the cumulative percentage of the total errors made to over 50 percent (50.21). Indeed, from Table 1, it can be seen that the first ten of the thirty-nine error categories account for only slightly less than three-quarters of all the errors made (74.57%). Thus, roughly one-quarter of the categories account for three-quarters of the errors.

This is a result that would be significant regardless of the nature of the actual errors and is precisely the kind of information that this study was intended to uncover. The fact that problem writers make a very large percentage of their errors in very few ways is clearly an important finding.

The next logical step is to name the categories in which all these errors were made. The first three, which account for 42.57 percent of the total errors, are Wrong Word (15.83%), Spelling (13.86%), and Comma-Compound (12.88%). The addition of the general category, Capitalization (7.64%), brings the cumulative total for the top four categories to over 50 percent (50.21). This tendency will be encountered again.

TABLE 1

A RANK ORDERING OF ERROR FREQUENCY

No.	Error	Frequency	Percentage	Cumulative percentage
38	Wrong Word	323	15.83	15.83
80	Spelling	283	13.86	29.69
51	Comma-Compound	263	12.88	42.57
63	Capitalization	156	7.64	50.21
32	Confusing Word(s)	108	5.29	55.50
90	Unidiomatic Expression	104	5.09	60.59
52	Comma-Introductory	85	4.16	64.75
22	Confusing Sentence	80	3.91	68.66
57	Comma-Suspension	61	2.99	71.65
37	Redundant Word	60	2.94	74.59
71	Antecedent-Pronoun	59	2.89	77.48
72	Subject-Verb Agreement	58	2.84	80.32
36	Omitted Word	58	2.84	83.16
31	Awkward Word(s)	39	1.91	85.07
42	Verb-Form	36	1.76	86.83
23	Comma Splice	31	1.52	88.35
44	Verb-Tense	30	1.47	89.82
61	Apostrophe-Possession	27	1.32	91.14
21	Awkward Sentence	26	1.27	92.41
26	Sentence Fragment	23	1.13	93.54
25	Run-On Sentence	18	0.88	94.42
68	Other Punctuation	18	0.88	95.30
56	Comma-Series	14	0.69	95.99
65	Hyphen	13	0.64	96.63
34	Misplaced Modifier	11	0.54	97.17
35	No Such Word	11	0.54	97.71
54	Comma-Quotation	9	0.45	98.16
42	Verb-Auxiliary	8	0.39	98.55
64	Colon	5	0.25	98.80
33	Inappropriate Word(s)	4	0.20	99.00
34	Verb-Person	4	0.20	99.20
62	Apostrophe-Contraction	4	0.20	99.40
73	Shift of Person	3	0.15	99.55
27	Mixed Construction	2	0.10	99.65
24	Parallelism	2	0.10	99.75
55	Comma-R/NR	2	0.10	99.85
66	Semicolon	2	0.10	99.95
53	Comma-Pairs	1	0.05	100.00
67	Parentheses	0	0.00	100.00
TOTALS		2,041	100.00	

Table 1 also shows that the last three categories in the ranking account for only 0.04 percent of the total errors. The last ten categories cumulatively account for a mere 0.72 percent of errors made. This tendency, as well, will be repeated in other tables.

SEMANTIC AND FORMAL ERROR

It is, of course, true that all errors impair meaning, but it is also true that some do so more than others. At the extremes, some errors render the meaning completely unintelligible, while others are merely an annoyance that interrupts the reading process for a very short time. Good writing should contain neither; however the problem writer must engage in such a struggle with the former simply to impart any notion of what he hopes to communicate that the latter errors of form become irrelevant. He is at a developmental point where even the rawest transmission of meaning is a challenge to his writing abilities.

Examples of formal error include the use of the comma, capitalization, spelling, and other cases of wrong usage where the meaning is left clear and unimpaired. Semantic error, on the other hand, includes none of the finer points of literacy, and results in the reader either having to guess at the intended meaning, or being forced to abandon all attempts to decipher. Plainly, the first task with the problem writer is to improve his semantic abilities; hence the following analysis of semantic errors.

In order to focus more clearly on the semantic errors in the data certain formal error categories that were significant in size were removed from the data. Table 2 presents these categories.

TABLE 2

FORMAL ERROR CATEGORIES REMOVED

Error	Frequency	Percentage	Cumulative percentage
Comma	435	21.31	21.31
Capitalization	156	7.64	28.95
Spelling	283	13.86	42.81
TOTALS	874	42.81	

SEPARATING SEMANTIC AND FORMAL ERROR

These three categories account for 42.81 percent of the total errors. Once these errors that "[did] not seriously impair meaning" (Shaughnessy:91) and have "no semantic purpose" (Shaughnessy:95) were excluded, it was possible to construct Tables 3 and 4 and gain a different view of the results. Though not all of the formal errors were removed from Tables 3 and 4, those that remained did not contribute materially to the outcome.

Tables 3 and 4 also present the data in general categories. For example, all errors having to do with words are included as Word Errors, and all of the various types of errors having to do with the use of the comma are tallied opposite Comma. As has been noted earlier, the format of Tables 3 and 4 is such that it permits comparison, Table 3 showing the general categories with the inclusion of the significant formal errors, and Table 4 showing the same thing after their removal.

TABLE 3

ERRORS BY GENERAL CATEGORY (FORMAL ERRORS INCLUDED)

Error	No.	Frequency	Percentage	Cumulative percentage
Words	31-38	614	30.08	30.08
Commas	51-57	435	21.31	51.39
Spelling	80	283	13.86	65.25
Sentences	21-27	182	8.91	74.16
Capitalization	63	156	7.64	81.80
Unidiomatic	90	104	5.09	86.89
Verbs	41-44	78	3.82	90.71
Antec-Pn.	71	59	2.89	93.60
Subj/Verb Agr.	72	58	2.84	96.44
Punct. (ex. comma)	68	38	1.86	98.30
Apos.-Posses.	61	27	1.32	99.62
All others		7	0.38	100.00
TOTALS		2,041	100.00	

The same tabulation without the formal errors is presented below as Table 4.

TABLE 4

ERRORS BY GENERAL CATEGORY (FORMAL ERRORS EXCLUDED)

Error	No.	Frequency	Percentage	Cumulative percentage
Words	31-38	614	52.61	52.61
Sentences	21-27	182	15.59	68.21
Unidiomatic	90	104	8.91	77.12
Verbs	41-44	78	6.68	83.80
Antec-Pn.	71	59	5.05	88.85
Subj/Verb Agr.	72	58	4.97	93.82
Punct. (ex. comma)	68	38	3.25	97.03
All others		7	0.62	100.00
TOTALS		1,167	100.00	

An examination of Tables 3 and 4 shows that both resemble Table 1 in the tendency, noted earlier, to be top-heavy. In all three rank orderings a very few categories contain by far the majority of the errors. In addition, a comparison of Tables 3 and 4 shows significant changes in the statistical importance of several of the general categories of error.

Word errors now account for over 50 percent of the total (52.61). Formerly, word errors were slightly more than 30 percent of the errors made (30.08%). This increase of close to 66 percent points out word errors as being the major semantic error made by the problem writer and therefore worthy of further investigation.

Similarly, the importance of sentence errors becomes evident in Table 4. These errors are now second only to word errors as a source of meaning impairment. Whereas in Table 3 sentence errors amounted to 8.91 percent of the total, in Table 4 they account for 15.59 percent of all errors. This near-doubling of their importance is not the result of a mindless manipulation of figures; it reflects the damage done by semantic errors at the sentence level. They are second only to word errors in overall frequency. Here too, further analysis is called for.

Table 4 in itself points out the combined importance of word errors and sentence errors. Together they account for over two-thirds of semantic errors (68.21%). The problem writer, in attempting to communicate, again and again failed to do so because of errors made at the word or sentence level. Because of the statistical importance of this finding, further analysis of these two general categories was thought to be appropriate. Tables 5 and 6 present a more detailed and precise analysis of the kinds of errors made in each general category.

TABLE 5

ANALYSIS OF WORD ERRORS

Error no.	Error name	Frequency	% 1167	% category	Cumulative %
38	Wrong Word	323	27.69	52.61	52.61
32	Confusing	108	9.25	17.59	70.20
37	Redundant	60	5.14	9.77	79.97
36	Omitted	58	4.97	9.45	89.42
31	Awkward	39	3.34	6.35	95.77
34	Mispl. Mod.	11	0.94	1.79	97.56
35	No Such	11	0.94	1.79	99.35
33	Inappro.	4	0.34	0.65	100.00
TOTALS		614	52.61	100.00	

WORD ERRORS

Table 5 shows that the most frequent error made was Wrong Word. This was also the most frequently occurring error in the study as a whole, representing 15.83 percent of all errors made. As a part of the general category "word errors" it represents over half of the errors made (52.61%) and word errors themselves are by far the largest single semantic error (Table 4: 52.61%). Thus, Wrong Word was the most frequently occurring error in the overall study, the most frequently occurring error in the general category that led all others in error frequency, and the most frequently occurring semantic error.

The analysis of word errors in Table 5 shows that this general category follows the pattern of having a very large percentage of the errors made in a relatively few categories. This pattern was observed in each of Tables 1, 3, and 4, and is repeated in Table 5 where the first three categories, Wrong Word (52.61%), Confusing Word (17.59%), and Redundant Word (9.77%) represent 79.97 percent of the errors. The addition of the fourth category, Omitted Word (9.45%), and the fifth category, Awkward Word (6.35%), brings the cumulative percentage of errors made in this general category to 95.77 percent. The last three categories are relatively insignificant.

The fact that these two semantic error categories both head the list and together contribute in excess of 70 percent (70.20) of the errors in this general category must be emphasized. In addition, if the frequencies of Wrong Word (323) and Confusing Word (108) are added and placed in the context of Table 4, they represent 36.93 percent of the semantic errors. This is second only to the contribution of the general category Word Errors.

Table 6 shows an analysis of the general category, Sentence Errors. In Table 4 this general category was second only to the general category Word Errors as constituting an impairment of meaning.

SENTENCE ERRORS

The most frequently occurring error in the general category Sentence Errors was Confusing Sentence (43.95%). Again, as was the case in Tables 1, 3, 4, and 5, a relatively small number of error categories accounted for a disproportionately large percentage of the errors made.

TABLE 6

ANALYSIS OF SENTENCE ERRORS

Error no.	Error name	Frequency	% 1167	% category	Cumulative %
22	Confusing	80	6.86	43.95	43.95
23	Comma Splice	31	2.66	17.03	60.98
21	Awkward	26	2.23	14.29	75.27
26	Fragment	23	1.97	12.64	87.91
25	Run-On	18	1.54	9.89	97.80
24	Parallelism	2	0.17	1.10	98.90
27	Mixed Constr.	2	0.17	1.10	100.00
TOTALS		182	15.60	100.00	

To illustrate this, Table 6 shows that the first error category alone, Confusing Sentence, contains 43.95 percent of the total errors in this general category. The table also shows the now familiar pattern involving the first few categories. In this case the first three of them account for three-quarters of the total errors in this category (75.27%).

The fact that the category Confusing Sentence accounts for 43.95 percent of all errors in this general category has an important implication as well. The definitions in Chapter I indicate that this is an error that characteristically results in "no meaning or only a vague meaning" being discernible to the reader. The fact that such a complete block to meaning occurs so frequently is important. The table also shows quite clearly that the first four errors, Confusing Sentence, Comma

Splice, Awkward Sentence, and Sentence Fragment together account for nearly all sentence errors made (97.80%). These errors share the characteristic of being severe impairments to meaning, a fact which makes their frequency only the more serious.

Tables 5 and 6 have shown the breakdown of word errors and sentence errors within their respective general categories. Table 7 presents the relationship that each error category has to each other error category within these two general categories, and the relationship that each error category has to the total semantic errors as summarized in Table 4.

TABLE 7

RELATING WORD ERRORS, SENTENCE ERRORS, AND SEMANTIC ERRORS

Error no.	Name of error	Frequency	% 1167	% 796	Cumulative %
38	Wrong Word	323	27.69	40.58	40.58
32	Confusing Word	108	9.25	13.57	54.15
22	Confusing Sentence	80	6.86	10.05	64.20
37	Redundant Word	60	5.14	7.54	71.74
36	Omitted Word	58	4.97	7.28	79.02
31	Awkward Word	39	3.34	4.90	83.92
23	Comma Splice	31	2.66	3.89	87.81
21	Awkward Sentence	26	2.23	3.27	91.05
26	Sentence Fragment	23	1.97	2.90	93.95
25	Run-On Sentence	18	1.54	2.26	96.21
34	No Such Word	11	0.94	1.38	97.59
31	Misplaced Modifier	11	0.94	1.38	99.00
33	Inappropriate Word	4	0.34	0.50	99.47
24	Lack of Parallelism	2	0.17	0.25	99.72
27	Mixed Construction	2	0.17	0.25	99.97
TOTALS		796	68.21	99.97	

WORD ERRORS, SENTENCE ERRORS, AND SEMANTIC ERRORS

The table comparing the various sentence and word errors follows the pattern observed in Tables 1, 3, 4, 5, and 6, in that a few errors account for a large percentage of the total errors. For example, the first category alone contains over 40 percent of errors made (40.58) and the first three categories added together account for nearly two-thirds of the total. From this point the distribution is slightly more even, but the initial top-heavy nature of the other tables has already been established.

The three most common error categories in Table 7, Wrong Word (40.58%), Confusing Word (13.57%), and Confusing Sentence (10.05%), all result in a severe impairment of meaning. The categories that contribute least to the error totals, Misplaced Modifier, Inappropriate Word, Lack of Parallelism, and Mixed Construction, are an insignificant percentage of the total errors.

In Table 7 the totals of the individual error categories are also compared to the total number of semantic errors summarized by general categories in Table 5. Together, the word errors and sentence errors constitute 68.21 percent of semantic errors (see Table 5). The breakdown of this 68.21 percent given by Table 7 has implications for instruction and curricula which will be discussed in the following chapter.

DISCUSSION

The results of the study can be looked at in three parts.

Table 1 presented the data in the form of a rank ordering by frequency. In this form the results indicated that Wrong Word, Spelling, Comma-Compound, and Capitalization were the errors with the highest frequency. These first four accounted for over 50 percent of all errors. The first ten categories in the rank ordering contained almost 75 percent of the errors. The last ten categories contained less than one percent of all errors committed. Thus, this presentation could be described as top-heavy, with Wrong Word being the most frequently committed error, closely followed by Spelling, and Comma-Compound.

Next, in order to focus on the semantic errors, some error categories were removed from consideration. The categories removed were Spelling, Comma-Compound, and Capitalization. The remaining data focussed directly on the errors most frequently involved in the problem writer's inability to communicate his meaning. The general categories shown to be most at fault here were Word Errors and Sentence Errors. Together they contained 68.21 percent of the errors affecting meaning, and again followed the top-heavy pattern of Table 1 (see Table 4).

The final step was first to analyse these two general categories in greater detail and then compare the error frequency of the various components. The tables that resulted from this shared the familiar top-heavy nature of Tables 1 and 3 (see Tables 5, 6, and 7). In the analysis of each general category, as well as the combined analysis of both, a few categories contained most of the errors. In the final combined analysis of the two general categories (Table 7), Wrong Word, Confusing Word, and Confusing Sentence accounted for 64.20 percent of all of the errors committed.

SUMMARY OF IMPORTANT RESULTS

Part of the problem of reporting the results of this study is that there are simply so many of them. The five most important results are summarized below.

1. The errors that were most frequently committed and that most seriously impaired the writers' ability to convey meaning were, in order of frequency, Wrong Word, Confusing Word, and Confusing Sentence.

2. These three errors together account for over two-thirds of the errors affecting meaning (semantic errors).

3. Some errors with the potential to impair meaning which were seldom committed were Misplaced Modifier, Inappropriate Word, Lack of Parallelism, and Mixed Construction.

4. All of the tables constructed to reflect error frequency shared the characteristic that a large percentage of the errors were made in very few of the total available categories (top-heaviness).

5. Table 7, which compares the Word Error frequencies to the Sentence Error frequencies resembles an English curriculum for basic remediation basic writing skills.

The results of the study reveal the number of errors made in the various categories, and from this information it is possible to point out certain relationships that are meaningful even without knowing more about the nature of the errors. It is true that one is limited to noting which category is largest or whether the errors are evenly distributed, but it is also true that this data was formerly unavailable from any source.

Chapter V

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS FOR FURTHER RESEARCH

A SUMMARY OF THE RESULTS

The results of the study can be summarized in six statements:

1. The errors committed most frequently that impaired meaning were Wrong Word, Confusing Word, and Confusing Sentence.

2. These three errors alone constituted over two-thirds of the errors impairing meaning.

3. Errors with the potential to impair meaning that were very infrequently made were Misplaced Modifier, Inappropriate Word, Lack of Parallelism, and Mixed Construction.

4. Errors were not distributed evenly over all categories; further, a feature of the analysis was the concentration of large numbers of errors in very few categories.

5. The final rank ordering of errors affecting meaning resembles closely a list of topics comprising a curriculum for a course in basic English.

6. Spelling, Capitalization, and the use of the Comma present major difficulties to the problem writer.

CONCLUSIONS

The fact that the error category Wrong Word led all others in error frequency points out that the single most prevalent problem among these problem writers in trying to have their written messages understood, occurs at the word level. The fact that Wrong Word is followed by the category Confusing Word as the second most frequent impediment to meaning and that this is also a word level error only underlines the conclusion that word use is a source of severe difficulty to the problem writer.

The fact that these first two error categories are followed in frequency by the category Confusing Sentence, an error that results in the sentence revealing "no meaning or only a vague meaning," shows that at the sentence level he is almost equally vulnerable. Indeed, the frequency of Confusing Sentence as an error affecting meaning is a mere 2.39 percent less than that of Confusing Word.

The relative frequencies of these three errors are shown in Table 7. From this we can see that Wrong Word occurs about three times more frequently than the other two. The error is defined as a word that does not fit the context, is the wrong form of the word, or fails to express the intended meaning. It would seem that in many cases the problem writer does not, whether he cannot or will not, follow the rules governing the finer points of word usage.

Wrong Word (40.58%), Confusing Word (13.57%), and Confusing Sentence (10.05%) constitute nearly two-thirds of the errors impairing meaning (64.20%: Table 7). From this result it is obvious that word usage and sentence structure are areas of the English curriculum that are not at all well understood by the problem writer.

Thirdly, the problem writers in this study made very few errors in some categories. Without further study it is not possible to say why this was the case, but the categories can be named. They are, to select a few examples from the Word and Sentence general categories, Misplaced Modifier, Inappropriate Word, Lack of Parallelism, and Mixed Construction. One is tempted to speculate that perhaps the reason for these categories being low on the list of errors committed is that they represent constructions found in the writing of the more sophisticated writer, but not in the problem writer's efforts. While this seems intuitively to have some merit, there is no evidence from this study to support it. It is also the case that the study did not undertake to investigate along those lines.

The fourth conclusion of the study is that problem writers tend to make the same mistakes over and over again. The data shows that of the thirty-nine categories in the taxonomy the first ten accounted for 74.57 percent and the first four over 50 percent (50.21) of all errors (Table 1). Throughout the various tables it is the case again and again that the first three or four categories in the ranking contain the lion's share of the errors. Thus the conclusion that while problem writers make a large number of mistakes, those mistakes are in a relatively few error categories.

The fifth conclusion is that the problem writer needs more remedial help in the following specifics. The order in which the error categories are listed is from those needing help the most to those in lesser need. The relative need in each case can be gauged from consulting the tables of relative error frequency. The areas that are most in

need of remediation for problem writers are:

1. Word usage,
2. Sentence construction.

A final conclusion is that problem writers capitalize, punctuate, and spell very poorly. These areas are not as crucial to meaning impairment, but they are handled so badly by problem writers that they deserve attention in curricula aimed at remediation.

IMPLICATIONS

The study implies that it is necessary to concentrate instruction for writers on certain things, and that the act of doing this should, if successful, pay handsome dividends. Since these areas amount to such things as word usage, sentence structure, spelling, punctuation, and capitalization, and since these topics are a part of what has always been recognized as the "basics" in English, the study implies that problem writers should be taught the "basics."

As well, careful attention to these basics, throughout the curriculum, could be important in a preventative way. It has lately been rather unfashionable to spend time emphasizing the concepts that form a part of the basic curriculum. Perhaps the knowledge of just how important these basics are to problem writers will serve to underline the importance of them in the curriculum.

RECOMMENDATIONS FOR FURTHER RESEARCH

There are a number of topics that this study has pointed out as

being worthy of further investigation. They fall into three general categories beginning with studies to further delineate the problem.

This study has classified and tallied errors, but still no current data are available that generalize to the population at large. Studies that would yield data of this type would be of great interest and value. If the logistical difficulties of mounting such a study prove prohibitive, other smaller groups might be investigated and compared to the one in this study.

A second kind of research suggested by this study is the type that searches for the reasons why problem writers write as they do. For example, given the prominence of Wrong Word as an error category, some attention to vocabulary would be appropriate. A study of the amount of curricular time actually spent on the most frequent errors would be of interest, as would attempts to elicit student comment on their own writing difficulties.

The third category of recommended research would test possible solutions to some of the difficulties of the problem writer. The studies themselves might follow the classical control group/experimental group format or seek out existing curricula with different emphases and test for results, but the focus should be on evaluating likely means of helping the problem writer.

The need for further research in this area reflects the almost total lack of information presently available. In summary, this research should be aimed at finding out more about the problem, searching for causes, and testing possible solutions. A world of possibilities exists in all three cases.

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APPENDIX I

SPECIMEN PAPERS

PAPER #33

DOES SOCIETY OWN YOU A LIVING?

Everybody should have a concept that a society is basically consisted of different walks of people, who are doing something for the society and for themselves simutaneously. When people are doing the jobs for themselves, logically they'll say that they do it for living. But, unfortunately and usually unwillingly they have a chance to do something for the society, how many times would you expect them to tell that the society owns them something?

I won't say they are selfish, just because they are showing their humanities. But it is obvious that those people who are complaining that the society owns themselves something, will soon find out, that something which is actually what they own themselves and their society.

Let's face the very popular problem nowaday in our society-- increase of unemployment rate. How come more civilized our society is, more increase of unemployment rate would be? what does it indicate? Is that the society trying to protect itself more than it has been? or the people just can"t help themselves to do something for their own society? because they think they are simply more civilized? And who contributes a seperation between the "creators" or "constructors" and the consumers of society?

No one says that life is fair, but it does not like a Phd. sitting all day at home on welfare, or a 21 years old young and health man walking in the street doing nothing. Are they really unable to help themselves to do something for society, or just because they have in mind that the society owns them something since they're well educated or young

or have any other privileges they got from their society and they deserve to have them back?

But how about if they think that we're the members of the society, if the society owns us something we also own the society something.

PAPER #06

DOES SOCIETY OWE THE COLLEGE GRADUATE A JOB?

The student who participates in a faculty for a number of years, doing the best he can and competing with the others. Should be entitled to a job once he graduates. The college will be full of well educated students probably the best around the city which it is located. If a job weren't offered it would influence others not to enroll, if this happened the teachers would be unemployed to a reasonal degree.

For a student to complete a four year course for example Engineering after following the facultie's program and failure System the student should be ready for society. Whether the graduate is the top of the class or average he should be judged by many other features of his ability. If the employer picks the top or worse student it's up to him.

Compeiting with others shows a very important aspect of achievement. Every society has certian jobs for different people, going through College shows the value of intelligence. For most alot of people they would rather use their brains the physical strength to make a living. This way it keeps others employed such as teachers and other people who keep the College running.

Once your brought into the world your put into various systems of learning. Education is widely used across many counties. It is an investment for the better of all individuals, whether they get through Grade ten or Graduates from a University. It peopares them for a way of life and shows the importance of learning for the particular job. Learning has many obstacles it depends on what and how you want to work for a living. The labour distribution assigns the rights of certian jobs

to the different people. The amount of education requird to become a truck driver is different from that of the Knowledge that must be studied to become an Engineer. So if the person decided to work at a certian without the education that's how he makes his living. For the Student who goes through the system and prepares him self for a particular job that can only be obtained by certian people he takes his chances to become employed by specific people. If ther's a distribution of jobs people are fitted in from the Knowledge that is learned through their years of life.

Considering some people like the idea of jobs that aren't as back breaking as others and that have pecunary advamtages of benefits to them. They will upgrade their Knowledge to get these jobs. So the enroll ment goes up in the College. Now these are the most interested people who want the jobs with some prestige. Every society needs individuals to continue the Knowledge that has already been learned by others such as Newton and Darwin to even the student working on solar energy if it is produced. The most likely people for the jobs are the people who know something about it. So if the Students aren't ready for the jobs in society the fault should be on the Government the school system for not preparing the course in a proper manor. The people who are constantly learning by triring to finish assignments or writing mid-terms on specific material and must be the individuals who are prepared for the jobs. No whether they cheated through the whole four years or they were the top of the class. The employer should be the one who does that decession. The best should graduate even though there's a graduating class above the person or the bottom. Every year there's places for

people in certain fast growing companys so society is obligated to employ the graduate who has some knowledge about the process of the company.

If the graduate doesn't get a job in their field they should be able to get something close to what they have learned in College. This keeps the interest for education in the society. Which is very important for every one for a standard of living as high as we have. Knowledge can be the intrepleted to life.

PAPER #26

In most cases, getting a job is an endity to a graduate, but there is not a single society in North America that would be able to guarantes a job for every graduates. Partically if all of them are trained engineers. These impossibles are based on the economic social, and personal reasons which acts as a counter-force to overflows this idea.

Economically speaking, the basic principle of supply and demand in economic seems to fits perfectly into this idea. The engineers (new graduates) supposed to be well-trained personel that could be able to handle designs and supervision on industries and building constructions. However, all these projects involves with a large amount of capital. Therefore, if the economy of a country in going down hill it should have problems in creating the projects for all these engineers. In contrast, even in an economical hightides a country still can not be able to guarantee this uncontrollable employment policy, because the adminitrastion is easier to run out hand and after and after the tides, the unemployment chance is another major concerns.

Nevertheless, the economical affections is the only reason--Social problems are also playing a key role. If there is really a guarantee jobs plan for graduates, than there could be a danger of outraged number of people enrolling into this training because of the guarantee. This could naturally creates a vancum on the other professions and it could also affects the other industries.

Aparts from the large number of engineers, there is also a possibility of lowered wages and benefits for engineers because of the outraged numbers of people. This could creates harassment to the profession and affecting their living standard.

This guarantee of jobs for engineer are valids, possibly involves with individual bad effects, the most obvious effect is the lowering of standard on training which caused by the "over-populated" number in universities and colleges. The govermnent not be able to provide such a large budget to the faculty of engineering in the universities for replacement of equipments and increasing of stuffs. The other direct influences is job seeking is supposingly a form of "freedom" that allows an individual to picks a job that suits them and hopefully they like. If there is a fixed job, that means they have lost their freedom of choice.

Somehow the guarantee of jobs for engineering graduates are seemingly impossible because of the uncontrollable harassments on economicals, social and individual issues are so stronge. Perhaps these could only created a negative effect on the graduates and their counter-parts. Also their lost of freedom to choice a job could be able to endanger their will to struggle and it sound unfair to the others.

APPENDIX II

AN APPLICATION

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The results of the study were used to effect major modifications in the curriculum for English 13 students. For three semesters the writing component of the course was structured so that the most frequent semantic errors in this study received the most attention.

The objective of the part of the course to which attention was turned was to enable students to eliminate the more common semantic errors and thus improve the clarity of their writing. Students were admitted to the course as a result of low Language Arts Nine marks or having failed to score above fifty percent in English 10. There was a considerable variety in skill levels among the members of each class. The criterion for admission was that the student had to be able to construct, consistently and correctly, an English sentence. Students unable to meet this standard were assigned to other remedial instruction levels thus establishing a kind of lower limit on the English 13 groups.

There were a number of points that arose when attempting to understand and remedy the students' writing problems, but one seemed to demand more attention than the others. The staff, knowing many of the students informally, all agreed that the students spoke much more clearly and correctly than they wrote. Even allowing for the more lenient rules of conversation, their spoken English seemed to betray a knowledge of the language that their writing failed in any way to suggest. If, as this seemed to suggest, errors in written English might in some cases be the result of inattention rather than lack of knowledge, it was felt that drawing the students' attention to the errors that were most at fault would be doubly profitable. From that point, with the aid of the

student's observed ability to correctly speak the language, correction would be simply a matter for the student himself. (It was hoped that eventually the student might even stop making the mistake in the first place.)

The errors selected for attention were sentence errors and word errors. Since, in the study, nearly ninety-eight percent of word errors consisted of Wrong Word (38), Confusing Word (32), Redundant Word (37), Omitted Word (36) and Awkward Word (31), these areas were drawn to the students' attention with particular force. Similarly, since Confusing Sentence (22), Comma Splice (23), Awkward Sentence (21), Sentence Fragment (26), and Run-On Sentence (25) accounted for some ninety-seven percent of sentence errors these areas were selected for concentrated instruction.

A characteristic of the above error categories that is important is the fact that a bare minimum of theory is necessary for a student to deal successfully with them. Wrong Word, Confusing Word, Redundant Word, Omitted Word, Awkward Word, and Confusing Sentence are semantic matters, and are, once recognized, best corrected by the author. The remaining errors, Comma Splice, Awkward Sentence, Sentence Fragment, and Run-On Sentence, require merely the student's knowledge of the rules for marking off sentences in order to enable him to correct his own errors. Thus, with a minimum of new teaching and by using the study's results to direct the instructor's search for areas of PROFITABLE concentration, a large percentage of semantic errors can be dealt with.

In fact, students proved to be quite adequate editors of their own work, once the types of errors to watch for were pointed out to them.

The result was writing which, although still far from being error-free, was much clearer in the message it intended to communicate. Indeed, some of the students, having thus cleared this first hurdle, began to see the benefits and the necessity of attacking other less semantically critical areas of error in their writing. In general, students were astonished (and very pleased) that they could, by paying attention to relatively few rules, so greatly improve their writing. The fact that the improvement was relatively rapid did not do the process any harm either. Throughout, the instructors emphasized to students that they were not trying to correct "each and every" error in their writing. The idea was advanced to them that if a large percentage of their writing errors could be eliminated, this would be a worthwhile enough objective for the moment.

It is, perhaps, also worthwhile speculating about those errors that were totally ignored in this initial thrust. The dangling participle is nowhere to be found and others received short shrift, or no attention at all. The important thing is that this was done by design, and the design had a basis in research data. This was important not only in making the project successful, which happily it was, but also in providing a means for getting back on the track when temporarily derailed. The use of the data in this way also provides the instructor with that rarest of all things in the English classroom, a known point from which to plan future excursions.

APPENDIX III

THE SAMPLE

The writing sample used in this study was gathered at the University of Alberta. The Faculty of Engineering required all freshmen applicants to submit an example of their writing with their applications for admission. These examples were reviewed by the teaching staff, and those students whose writing reflected a need for remediation were required to enroll in English 190.

When the students began their English classes in September 1978, their instructors immediately required each student to write an essay which the instructors later used for diagnostic purposes. These were the essays that formed the sample in this study. They were written in the normal fifty-minute class under the supervision of the regular instructor of that class. Students were informed that the essays were to be used for both diagnostic and study purposes, and their consent was given to use the materials for those purposes. The topic asked the student-author to express his opinion as to whether or not society owed the college graduate a job.

Care was taken that the instructions given were uniform and clear. To guarantee anonymity papers used in this study were assigned a number randomly at the source. The identities of the authors were never known to the researcher.